I Claim:-

1. A fibre reinforced metal rotor comprising a hub, a rim and a member extending radially between and interconnecting the hub and the rim, the fibre reinforced metal rotor having an axis of rotation,

the fibre reinforced metal rotor having at least two rings of fibres arranged integrally within the fibre reinforced metal rotor,

a first ring of fibres being arranged substantially at a first radial distance from the axis of rotation, a second ring of fibres being arranged substantially at a second radial distance from the axis of rotation and the second radial distance is greater than the first radial distance,

the first ring of fibres being arranged in the hub of the fibre reinforced metal rotor.

2. A ~~fibre~~ fiber reinforced metal rotor as claimed in claim 1 wherein the second ring of ~~fibres~~ fibers is arranged in the rim of the ~~fibre~~ fiber reinforced metal rotor.

3. A fibre reinforced metal rotor as claimed in claim 1 wherein the fibre reinforced metal rotor comprises a metal selected from the group comprising titanium, titanium aluminide, an alloy of titanium, or any suitable metal, alloy and intermetallic which is capable of being bonded.

4. A fibre reinforced metal rotor as claimed in claim 1 wherein each of the rings of fibres comprises a fibre selected from the group comprising silicon carbide, silicon nitride, boron, alumina and other suitable fibres.

5. A ~~fibre~~ fiber reinforced metal rotor as claimed in claim 1 wherein the ~~fibre~~ fiber reinforced metal rotor has at least one rotor blade.

6. A ~~fibre~~ fiber reinforced metal rotor as claimed in claim 5 wherein the at least one rotor blade is integral with the ~~fibre~~ fiber reinforced metal rotor.

7. A ~~fibre~~ fiber reinforced metal rotor as claimed in claim 5 wherein the at least one rotor blade has a root arranged to

fit in a groove in the rim of the ~~fibre~~ fiber reinforced metal rotor.

8. A ~~fibre~~ fiber reinforced metal rotor as claimed in claim 1 wherein the ~~fibre~~ fiber reinforced metal rotor has an outer radius, the outer radius is at least about 0.5 ~~metres~~ meters.

9. A fibre reinforced metal rotor as claimed in ~~any of~~ claims 1 ~~to 8~~ comprising a plurality of axially spaced rotor discs, at least one of the rotor discs having at least two rings of fibres, each rotor disc having a plurality of rotor blades extending radially therefrom, a stator spaced from the rotor by a clearance, at least one annular spacer extending axially between and secured to an upstream rotor disc and a downstream rotor disc, the at least one annular spacer being fibre reinforced to limit the radial movement thereof and hence the clearance between the rotor and the stator.

10. A rotor as claimed in claim 9 wherein the stator comprises a casing surrounding and spaced radially from the rotor blades by a clearance, the at least one annular spacer being fibre reinforced to limit the radial movement thereof and hence the clearance between the rotor and the stator.

11. A rotor as claimed in claim 9 wherein the ~~stator~~ casing comprises a stator vane assembly surrounding and spaced radially from the annular spacer by a clearance ~~, the at least one annular spacer being fibre reinforced to limit the radial movement thereof and hence the clearance between the rotor and the stator~~.

12. A rotor as claimed in claim 11 wherein the annular spacer has at least one circumferentially extending rib to define a labyrinth seal with the stator vane assembly.

13. A rotor as claimed in claim 9 wherein the at least one annular spacer is a ~~fibre~~ fiber reinforced metal spacer.

14. A rotor as claimed in claim 9 ~~to 15~~ wherein all the rotor discs are ~~fibre~~ fiber reinforced metal discs, the ~~fibre~~ fiber reinforced metal disc being reinforced by at least two rings of ~~fibres~~ fibers.

15. A rotor as claimed in claim 13 wherein the fibre reinforced metal spacer comprises a metal selected from the group comprising titanium, titanium aluminide, an alloy of titanium, and any suitable metal, alloy or intermetallic which is capable of being bonded.

16. A rotor as claimed in claim 9 wherein the reinforcing ~~fibres~~ fibers comprises a ~~fibre~~ fiber selected from the group ~~comprising~~ consisting of silicon carbide, silicon nitride, boron, and alumina ~~and other suitable fibres~~.

17. A rotor as claimed in claim 9 wherein there are plurality of annular spacers.

18. A rotor as claimed in claim 9 wherein the ~~fibre~~ fiber reinforcement in the annular spacer is selected to provide sufficient stiffness to the annular spacer to ~~minimise~~ minimize radially outward movement of the annular spacer relative to the upstream rotor disc and downstream rotor disc.

19. A rotor as claimed in claim 18 wherein the ~~fibre~~ fiber reinforcement in the annular spacer is selected to provide sufficient stiffness to the annular spacer to match the radially outward movement of the annular spacer, the upstream rotor disc and the downstream rotor disc.

20. A rotor as claimed in claim 9 wherein the ~~fibre~~ fiber reinforcement in the annular spacer is selected to provide sufficient stiffness to the annular spacer to produce radially inward movement of the annular spacer relative to the upstream rotor disc and downstream rotor disc.

21. A rotor as claimed in claim 9 wherein the rotor is a compressor rotor or a turbine rotor.

22. A rotor as claimed in claim 1 wherein the rotor is a gas turbine rotor.